CLAIMS

What is claimed is:

1. An electrical connector comprising:

an insulative substrate having first and second pluralities of openings therethrough, said first and second pluralities of openings being arranged in first and second array patterns, said substrate having first and second opposing surfaces;

a plurality of conductive elastomeric contact members, each of said conductive elastomeric contact members having first and second opposing end surfaces and a generally circumferential recess defining opposing shoulders, said substrate being disposed at least partially within the recess between said opposing shoulders of each of said plurality of conductive elastomeric contact members to mount said members to said substrate in a contact array, said first and second contact member end surfaces being spaced first and second distances from said first and second opposing substrate surfaces respectively when said contact members are mounted within said substrate; and

a plurality of stops, each of said stops having first and second opposing end surfaces and a generally circumferential recess defining opposing shoulders, each of said stops having a circumferential recess defining opposing shoulders, said substrate being disposed at least partially within the recess between said opposing shoulders of said stops to mount said stops to said substrate, said first and second stop end surfaces disposed third and fourth distances from said first and second opposing substrate surfaces respectively when said

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stops are mounted within said substrate, wherein said third distance is less than said first distance and said fourth distance is less than said second distance, and wherein each of said stops is spaced from adjacent contact members.

2. The connector of claim 1 wherein said first and second distances are equal and said third and fourth distances are equal.

3. The connector of claim 1 wherein each one of said plurality of contacts include first and second contact portions projecting from said first and second surfaces respectively, and wherein said first and second contact portions are generally cylindrical.

4. The connector of claim 1 wherein each one of said plurality of contacts include first and second contact portions projecting from said first and second surfaces respectively, and wherein said first and second contact portions are generally frustums.

5. The connector of claim 1 wherein each one of said stops include first and second stop portions projecting from said first and second surfaces respectively, and wherein said first and second stop portions are generally cylindrical.

6. The connector of claim 1 wherein each one of said stops include first and second stop portions projecting from said first and second surfaces respectively, and wherein said first and second stop portions are generally frustums.

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7. The connector of claim 1 wherein said stops are non-conductive.

8. The connector of claim 7 wherein said non-conductive stops comprise a polymer.

9. The connector of claim 8 wherein said stops comprise silicon stops.

10. The connector of claim 1 wherein said substrate comprises a polyimide sheet.

11. The connector of claim 1 wherein each one of said stops is spaced in non-abutting relation with adjacent ones of said plurality of contacts.

12. The connector of claim 1 wherein at least some of said plurality of stops are located within said contact array and spaced in non-abutting relation with respect to adjacent contact members.

13. The connector of claim 1 wherein at least some of said stops are selectively positioned outside said contact array.

14. The connector of claim 13 wherein said stops are non-conductive.

15. The connector of claim 13 wherein at least some of said stops positioned outside said contact array are generally rectangular.

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16. A method for forming a connector comprising:

in a first molding operation, forming a first plurality of conductive elastomeric contacts such that the elastomeric contacts are captively retained within a corresponding first plurality of holes within a generally planar non-conductive substrate having said first plurality of holes arranged in a first array pattern and a second plurality of holes arranged in a second array pattern, said elastomeric contacts having an outer surface and opposing end surfaces; and

in a second molding operation, forming a plurality of stops that extend through said second plurality of holes, said stops having opposing end surfaces and an outer surface, said elastomeric contact end surfaces extending from said substrate a distance greater than said stop end surfaces, each one of said stops being spaced from adjacent ones of said plurality of conductive contacts.

17. The method of claim 16 wherein said step of forming a plurality of stops comprises the step of forming a plurality of insulative stops.

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